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26. A heater according to claim 25 wherein said heating conduit comprises a plurality of continuous and generally horizontal tubes sequentially linked together by a plurality of tube bends extending from a heater inlet at the top of said radiant section to

an outlet at the bottom of said radiant section.

27. A heater according to claim 26 wherein at least a portion of said tubes are

arranged in two offset vertical columns having a serpentine pattern.

28. A heater according to claim 27 wherein said heater tubes are horizontally and

vertically displaced so as to have a staggered configuration.

29. A heater according to claim 25 wherein said heating conduit comprises a

plurality of continuous and generally horizontal tubes sequentially linked together by a

plurality of tube bends extending from an upper portion of said radiant section to outlet

tubes in the lower portion of said radiant section.

30. A heater according to claim 29 wherein said plurality of continuous and

generally horizontal tubes sequentially linked together by a plurality of tube bends have a

serpentine pattern.

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- 31. A heater according to claim 30 wherein said plurality of continuous and generally horizontal tubes sequentially linked together by a plurality of tube bends are horizontally and vertically displaced so as to have a staggered configuration.
- 32. A heater according to claim 25 wherein said burners are located in a lower portion of said radiant section on each side of the conduit, between the conduit and the side walls.
  - 33. A delayed coking heater for heating a coking feedstock comprising:
  - a first convection section;
- a second radiant section adjacent to said first convection section, said second section transmitting heat to said feedstock by radiant means;
  - a feedstock heater inlet at the bottom of said radiant section;
- a heating conduit in said radiant section comprising a plurality of horizontal heater tubes sequentially linked by tube bends to allow flow of feedstock from the bottom to the top of said heater;
  - a heater outlet at the top of said radiant section; and
- a plurality of burners located in a lower portion of said radiant section on each side of said heater tubes.
- 34. A heater according to claim 33 further comprising a plurality of conventionally arranged single column planar tube bundles.

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Mr. J

- 35. A heater according to claim 33 wherein said heating conduit comprises double vertical staggered columns.
- 36. A heater according to claim 35 further comprising a plurality of vertical columns.
- 37. A heater according to claim 33 wherein said heating conduit comprises a plurality of continuous and generally horizontal tubes sequentially linked together by a plurality of tube bends extending from a heater inlet at the bottom of said radiant section to an outlet at the top of said radiant section.
- 38. A heater according to claim 37 wherein at least a portion of said tubes are arranged in two offset vertical columns having a serpentine pattern.--